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Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT

	COMMUNITY AND REVISION INFORMATION	PROJECT DESCRIPTION	BASIS OF REQUEST			
COMMUNITY	City of Columbia Richland County South Carolina	NO PROJECT	FLOODWAY HYDRAULIC ANALYSIS HYDROLOGIC ANALYSIS NEW TOPOGRAPHIC DATA			
	COMMUNITY NO.: 450172					
IDENTIFIER	Smith Branch- Sunset Drive To Colonial Drive	APPROXIMATE LATITUDE & LONGITUDE: 34.020, -81.020 SOURCE: Other DATUM: NAD 83				
	ANNOTATED MAPPING ENCLOSURES	ANNOTATED STUDY ENCLOSURES				
TYPE: FIRM*	NO.: 45079C0092H DATE: February 20, 2002	DATE OF EFFECTIVE FLOOD INSURANCE STUDY REPORT: September 29, 2011 PROFILES: 129P, 130P, 131P FLOODWAY DATA TABLE: TABLE 8 SUMMARY OF DISCHARGES TABLE: TABLE 6 DATE OF EFFECTIVE FLOOD INSURANCE STUDY REPORT: February 20, 2002 PROFILES: 128P FLOODWAY DATA TABLE: TABLE 3				

Enclosures reflect changes to flooding sources affected by this revision.)

* FIRM - Flood Insurance Rate Map

FLOODING SOURCE(S) & REVISED REACH(ES)

See Page 2 for Additional Flooding Sources

Smith Branch - from just downstream of Sunset Drive to just upstream of Colonial Drive

SUMMARY OF REVISIONS							
Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases			
Smith Branch	Zone AE	Zone AE	YES	YES			
	Floodway	Floodway	YES	YES			
	BFEs*	BFEs	NONE	YES			

* BFEs - Base Flood Elevations

DETERMINATION

This document provides the determination from the Department of Homeland Security's Federal Emergency Management Agency (FEMA) regarding a request for a Letter of Map Revision (LOMR) for the area described above. Using the information submitted, we have determined that a revision to the flood hazards depicted in the Flood Insurance Study (FIS) report and/or National Flood Insurance Program (NFIP) map is warranted. This document revises the effective NFIP map, as indicated in the attached documentation. Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals in your community.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at http://www.fema.gov/nfip.

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LETTER OF MAP REVISION **DETERMINATION DOCUMENT (CONTINUED)**

OTHER FLOODING SOURCES AFFECTED BY THIS REVISION

FLOODING SOURCE(S) & REVISED REACH(ES)

Bay Branch - from the confluence with Smith Branch to approximately 1,500 feet upstream

	SUMMARY OF REVI			
Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Bay Branch	BFEs*	BFEs	NONE	YES
	Floodway	Floodway	YES	YES
	Zone AE	Zone AE	YES	YES

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at http://www.fema.gov/nfip.



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LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

COMMUNITY INFORMATION

APPLICABLE NFIP REGULATIONS/COMMUNITY OBLIGATION

We have made this determination pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65. Pursuant to Section 1361 of the National Flood Insurance Act of 1968, as amended, communities participating in the NFIP are required to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These criteria, including adoption of the FIS report and FIRM, and the modifications made by this LOMR, are the minimum requirements for continued NFIP participation and do not supersede more stringent State/Commonwealth or local requirements to which the regulations apply.

We provide the floodway designation to your community as a tool to regulate floodplain development. Therefore, the floodway revision we have described in this letter, while acceptable to us, must also be acceptable to your community and adopted by appropriate community action, as specified in Paragraph 60.3(d) of the NFIP regulations.

COMMUNITY REMINDERS

We based this determination on the base (1-percent-annual-chance) flood discharges computed in the submitted hydrologic model. Future development of projects upstream could cause increased discharges, which could cause increased flood hazards. A comprehensive restudy of your community's flood hazards would consider the cumulative effects of development on discharges and could, therefore, indicate that greater flood hazards exist in this area.

Your community must regulate all proposed floodplain development and ensure that permits required by Federal and/or State/Commonwealth law have been obtained. State/Commonwealth or community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If your State/Commonwealth or community has adopted more restrictive or comprehensive floodplain management criteria, those criteria take precedence over the minimum NFIP requirements.

We will not print and distribute this LOMR to primary users, such as local insurance agents or mortgage lenders; instead, the community will serve as a repository for the new data. We encourage you to disseminate the information in this LOMR by preparing a news release for publication in your community's newspaper that describes the revision and explains how your community will provide the data and help interpret the NFIP maps. In that way, interested persons, such as property owners, insurance agents, and mortgage lenders, can benefit from the information.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at http://www.fema.gov/nfip.

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LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

Mr. Brad Loar
Director, Mitigation Division
Federal Emergency Management Agency, Region IV
Koger Center - Rutgers Building, 3003 Chamblee Tucker Road
Atlanta, GA 30341
(770) 220-5400

STATUS OF THE COMMUNITY NFIP MAPS

We are preparing a revised FIRM and FIS report for Richland County in our countywide format; therefore, we will not physically revise and republish the FIRM and FIS report for your community to incorporate the modifications made by this LOMR at this time. Preliminary copies of the countywide FIRM and FIS report, which will present information from the effective FIRMs and FIS reports for your community and other incorporated communities in Richland County, will be distributed for review in approximately 9 months. We will incorporate the modifications made by this LOMR into the Preliminary countywide FIRM before it is distributed, and the modifications will be included when the countywide FIRM becomes effective.

The FIRM panel 45079C0092H, dated February 2002 is referenced to NGVD 29. However, the 2010 FIS Report includes the flood profiles and Floodway Data Table for Smith Branch, both referenced to NAVD 88. This LOMR revision affects profiles 129P-131P. All elevation data in the Floodway Data Table for Smith Branch are also converted to NGVD.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at http://www.fema.gov/nfip.

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LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

PUBLIC NOTIFICATION OF REVISION

A notice of changes will be published in the *Federal Register*. This information also will be published in your local newspaper on or about the dates listed below and through FEMA's Flood Hazard Mapping website at https://www.floodmaps.fema.gov/fhm/Scripts/bfe_main.asp.

LOCAL NEWSPAPER Name: The Columbia Star

Dates: January 17, 2014 and January 24, 2014

Within 90 days of the second publication in the local newspaper, a citizen may request that we reconsider this determination. Any request for reconsideration must be based on scientific or technical data. Therefore, this letter will be effective only after the 90-day appeal period has elapsed and we have resolved any appeals that we receive during this appeal period. Until this LOMR is effective, the revised flood hazard determination information presented in this LOMR may be changed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at http://www.fema.gov/nfip.

TABLE 6 - SUMMARY OF DISCHARGES - (continued)

FLOODING SOURCE	DRAINAGE AREA		PEAK DIS	CHARGES (c	efs)	
AND LOCATION	(sq.miles)	<u>10-YEAR</u>	<u>50-YEAR</u>	<u>100-YEAR</u>	<u>500-YEAR</u>	
REEDER POINT						
BRANCH (continued)						
Below confluence of						
Tributary RP-1	6.74	2,445	3,683	4,218	5,663	
Above confluence of						
Tributary RP-1	4.66	1,904	2,962	3,488	4,571	
At Southern Railway	3.89	1,886	2,837	3,302	4,224	
Below dam	1.77	1,003	1,554	1,809	2,313	
Above Burnsides Pond	0.96	518	763	882	1,124	
ROBERTS BRANCH						
At mouth	6.24	710	1,540	2,182	3,119	
Below Stevensons Lake	5.73	705	1,698	2,278	3,137	
Above Steven sons Lake	5.73	796	1,806	2,314	3,175	
Below Crescent Lake	5.23	749	1,704	2,182	2,989	
Above Crescent Lake	4.35	743	1,545	1,956	2,634	
Below Epsworth Lake	3.55	626	1,303	1,659	2,233	
Above Epsworth Lake	3.55	982	1,587	1,891	2,416	
At Southern Railway	2.51	698	1,115	1,328	1,695	
ROCKY BRANCH						
At mouth	3.7	2,210	3,190	3,550	4,780	
At Southern Railway	2.9	2,110	3,020	3,360	4,430	
SALUDA RIVER At mouth	2,510.0	32,000	90,000	105,000	145,000	
At mouth	2,310.0	32,000	70,000	105,000	143,000	
SANDY BRANCH						
Below Bridge Creek 1	8.70	1,913	3,294	3,904	5,120	
At Richland County	4.00	1 210	2 200	2.707	2.512	
Boundary	4.00	1,319	2,299	2,707	3,512	
SMITH BRANCH		REVISED				
At mouth	7.36	2,681	3,867	4,435	5,672	
At confluence of						
Bay Branch	5.49	1,820	2,280	2,490	3,000	
Above confluence						
of Bay Branch	2.48	1,570	1,960	2,120	2,570	
At Colonial Drive	2.02	953	1,170	1,270	1,520	
At Preston Drive	0.74	576	652	754	897	
SORGHUM BRANCH						
At mouth	1.36	466	658	749	903	REVISED
SPEARS CREEK						BY LOMR
At County Line Dam	10.83	817	1,521	1,795	2,320	Dated
¹ Outside Richland County						October 1, 2012

REVISED TO REFLECT LOMR EFFECTIVE: May 26, 2014

FLOODING SOURCE FLOODWAY					BASE FLOOD WATER SURFACE ELEVATION (FEET NGVD)				
CROSS SECTION	DISTANCE 1	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE	
SMITH BRANCH									REVISED
(continued)									/ BY LOMR
AA	18,645 ¹	123	614	2.8	237.7	237.7	238.6	0.9	DATED
AB	18,930 ¹	40	190	9.0	238.5	238.5	239.3	0.8	OCTOBER 1, 2012
Bay Branch									
Α	1,300 ²	124	842	5.8	214.6	212.1 ³	212.2	0.1	
В	1,550 ²	150	1,311	2.8	218.1	218.1	218.9	0.8	
С	2,000 ²	66	356	7.8	219.2	219.2	220.1	0.9	
D	2,650 ²	213	1,183	2.4	221.8	221.8	222.8	1.0	
Е	3,910 ²	98	382	6.8	228.3	228.3	229.1	0.8	
F	4,410 ²	68	297	8.7	233.2	233.2	233.2	0.0	
G	5,180 ²	128	578	4.5	235.7	235.7	236.3	0.6	\
Н	5,650 ²	176	622	4.2	238.1	238.1	238.8	0.7	
I	6,250 ²	132	458	4.8	240.9	240.9	241.1	0.2	
J	6,750 ²	135	529	4.2	242.9	242.9	243.7	0.8	[∖] REVISED AREA
K	7,170 ²	140	539	4.1	244.5	244.5	245.4	0.9	
L	7,500 ²	41	255	8.6	245.0	245.0	245.8	0.8	
М	7,820 ²	80	465	4.7	248.7	248.7	248.9	0.2	
N	8,160 ²	110	547	4.0	249.5	249.5	249.7	0.2	
0	9,220 ²	100	461	4.8	253.9	253.9	254.8	0.9	
Р	9,490 ²	75	277	6.4	255.6	255.6	255.9	0.3	
Q	9,965 ²	35	255	6.9	258.0	258.0	258.1	0.1	
R	10,330 ²	35	237	7.4	258.5	258.5	258.7	0.2	
S	10,780 ²	70	469	3.8	262.5	262.5	263.5	1.0	

¹ Feet above confluence with Broad River

FEDERAL EMERGENCY MANAGEMENT AGENCY
RICHLAND COUNTY, SC
AND INCORPORATED AREAS

REFLECT LOMR
FLOODWAY DATAFECTIVE: May 26, 2014

REVISED TO

SMITH BRANCH-BAY BRANCH

TABLE 3

² Feet above confluence with Smith Branch

³ Elevation computed without consideration of backwater effects from Smith Branch

FLOODING SOURCE FLOODWAY				BASE FLOOD WATER SURFACE ELEVATION (FEET NGVD)				
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
SMITH BRANCH								
А	1,750	126	503	8.8	174.9	164.6 ²	164.6	0.0
В	2,450	612	2,568	1.7	174.9	168.4 ²	169.3	0.9
С	3,470	144	504	8.8	174.9	170.6 ²	170.7	0.1
D	3,900	226	1,294	3.4	174.9	174.7 ²	175.7	1.0
Е	4,400	204	1,239	3.6	177.9	177.9	178.6	0.7
F	4,950	192	1,375	3.2	179.9	179.9	180.7	0.8
G	5,400	303	2,355	1.9	181.0	181.0	181.8	0.8
Н	5,900	200	1,197	3.7	181.9	181.9	182.7	0.8
1	6,730	238	1,454	3.0	185.5	185.5	186.3	0.8
J	7,710	163	1,043	4.3	189.2	189.2	190.1	0.9
K	8,600	82	753	5.0	193.6	193.6	194.6	1.0
L	9,490	160	1,610	2.1	202.7	202.7	202.7	0.0
M	10,310	165	1,636	2.1	202.9	202.9	202.9	0.0
N	10,770	84	832	4.1	202.9	202.9	203.0	0.0
0	11,550	110	772	3.6	203.2	203.2	203.4	0.2
Р	11,850	63	430	6.5	203.3	203.3	203.4	0.1
Q	12,400	200	1,838	2.2	214.5	214.5	214.5	0.0
R	12,820	304	3,602	1.6	214.6	214.6	214.6	0.0
S	13,280	296	3,500	0.6	214.6	214.6	214.6	0.0
Т	14,020	210	1,159	3.2	216.2	216.2	216.2	0.0
U	14,360	240	1,202	2.3	216.3	216.3	216.3	0.0
V	14,930	300	1,522	1.6	218.4	218.4	218.4	0.0
W	15,450	170	715	4.1	218.5	218.5	218.5	0.0

REVISED / DATA

REVISED TO REFLECT LOMR

FLOODWAY DATA EFFECTIVE: May 26, 2014

SMITH BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY **RICHLAND COUNTY, SC AND INCORPORATED AREAS**

Feet above confluence with Broad River
 Elevation computed without consideration of backwater effects from Broad River

FLOODING S	OURCE	FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NGVD)			
CROSS SECTION	DISTANCE 1	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
SMITH BRANCH								
X	15,970	76	422	3.0	218.9	218.9	218.9	0.0
Υ	18,050	487	90	3.5	235.5	235.5	236.4	0.9
Z	18,260	295	52	5.8	236.4	236.4	237.2	0.8
AA	18,645	614	123	2.8	238.5	238.5	239.4	0.9
AB	18,930	190	40	9.0	239.3	239.3	240.1	0.8
				REVISED DATA			Revised by LOMR dated October 1, 2012	

¹ Feet above confluence with Broad River

REVISED TO REFLECT LOMR

FEDERAL EMERGENCY MANAGEMENT AGENCY
RICHLAND COUNTY, SC
AND INCORPORATED AREAS

FLOODWAY DATA May 26, 2014

SMITH BRANCH









